WHAT IS CLAIMED IS:

1. A microresonator device, comprising:

a first substrate having at least one self-aligning feature on a surface;

a first waveguide disposed relative to the first substrate; and

a microresonator positioned on the substrate by the self-aligning feature so as to optically couple to the first waveguide.

2. A device as recited in claim 1, wherein the self-aligning feature is a receiving cavity on the surface of the first substrate.

3. A device as recited in claim 1, wherein the self-aligning feature is a slot on the first substrate, wherein the microresonator is positioned at a location along the slot.

4. A device as recited in claim 3, wherein the first waveguide is positioned in the slot.

5. A device as recited in claim 3, wherein the microresonator contacts a slot edge, the slot edge being nonparallel with the first waveguide.

6. A device as recited in claim 3, wherein the microresonator contacts a slot edge, the slot edge being parallel with the first waveguide.

7. A device as recited in claim 3, wherein the slot has a first edge and a second edge closer to the first waveguide than the first edge, the microresonator being aligned by the first edge of the slot and the first waveguide.

8. A device as recited in claim 3, wherein the slot has a first edge and a second edge closer to the first waveguide than the first edge, the microresonator being aligned by the first edge of the slot and the second edge of the slot.

9. A device as recited in claim 1, wherein the first waveguide is disposed on the substrate, the first waveguide being unsupported by the substrate at a coupling region of the waveguide.

10. A device as recited in claim 1, wherein a direction of optical coupling between the first waveguide and the microresonator is parallel to the surface of the first substrate.

11. A device as recited in claim 1, wherein a direction of optical coupling between the first waveguide and the microresonator is perpendicular to the surface of the first substrate.

12. A device as recited in claim 1, wherein the first waveguide is an optical fiber.

13. A device as recited in claim 12, wherein the optical fiber is a tapered optical fiber.

14. A device as recited in claim 1, wherein the first waveguide is a planar waveguide.

15. A device as recited in claim 1, wherein the first waveguide is a channel waveguide.

16. A device as recited in claim 1, wherein the microresonator is microsphere.

17. A device as recited in claim 1, further comprising an adhesive material disposed to hold the microresonator to the self-aligning feature.

18. A device as recited in claim 1, further comprising at least one retaining member disposed to retain the microresonator at a desired location relative to the self-aligning feature.

19. A device as recited in claim 1, further comprising a second substrate and a second waveguide disposed relative to the second substrate, the second waveguide being optically coupled to the microresonator.

20. A device as recited in claim 1, further comprising a light source generating light, the light being coupled to the first waveguide and from the first waveguide to the microresonator.

21. A device as recited in claim 20, further comprising a light detector optically coupled to detect light from the microresonator.

22. A device as recited in claim 20, wherein the light detector is coupled to receive light from the microresonator via the first waveguide.

23. A device as recited in claim 1, wherein the microresonator further comprises an optical gain medium.

24. A device as recited in claim 1, further comprising a second waveguide disposed relative to the first substrate, the second waveguide being optically coupled to the first microresonator.

25. A device as recited in claim 1, further comprising a second substrate disposed proximate the first substrate.

26. A device as recited in claim 25, further comprising a second waveguide disposed relative to one of the first and second substrates, the second waveguide being optically coupled to the first microresonator.

27. A device as recited in claim 26, wherein the first waveguide is attached to the first substrate and the second waveguide is attached to the second substrate.

28. A method of making a microresonator optical device, comprising:

providing at least one self-aligning feature on a first substrate;

providing a first waveguide; and

positioning a microresonator, using the at least one self-aligning feature, so that the microresonator is in an optically coupling relationship with the first waveguide.

29. A method as recited in claim 28, wherein providing the at least one self-aligning feature on the first substrate comprises forming a receiving cavity on a surface of the substrate and positioning the microresonator comprises positioning the microresonator in the cavity.

30. A method as recited in claim 28, wherein providing the at least one self-aligning feature on the first substrate comprises forming a slot on a surface of the first substrate.

31. A method as recited in claim 30, wherein providing the first waveguide comprises providing the first waveguide in the slot.

32. A method as recited in claim 30, wherein forming the slot comprises forming a slot edge non-parallel with the first waveguide.

33. A method as recited in claim 28, wherein providing the at least one self-aligning feature comprises etching the at least one self-aligning feature in a surface of the substrate.

34. A method as recited in claim 28, further comprising optically coupling light between the first waveguide and the microresonator in a direction parallel to a major surface of the substrate.

35. A method as recited in claim 28, further comprising optically coupling light between the first waveguide and the microresonator in a direction perpendicular to a major surface of the substrate.

36. A method as recited in claim 28, further comprising adhering the microresonator to the first substrate to hold the microresonator in a fixed relationship relative to the self-aligning structure.

37. A method as recited in claim 28, further comprising fixing the microresonator at a desired location relative to the self-aligning element with at least one retaining member.

38. A method as recited in claim 28, further comprising providing a second substrate and a second waveguide disposed relative to the second substrate, and optically coupling light between the microresonator and the second waveguide.